

## Product Brief

### Mobile Intel® 910GML Express Chipset

Embedded Computing



# Mobile Intel® 910GML Express Chipset for Embedded Computing

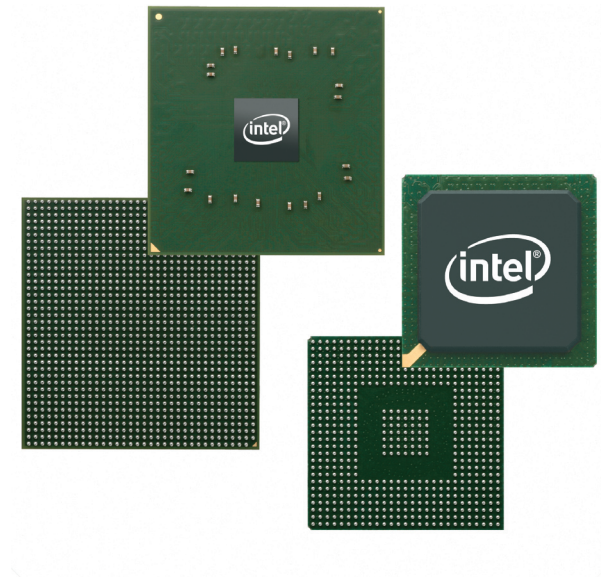
## Product Overview

The Mobile Intel® 910GML Express chipset offers an optimized integrated graphics solution with a 400 MHz front-side bus. The integrated 32-bit 3D graphics engine, based on Intel® Graphics Media Accelerator 900 (Intel® GMA 900) architecture, operates at core speeds of up to 200 MHz. The chipset consists of the Intel® 910GML Graphic Memory Controller Hub (GMCH) and the Intel® I/O Controller Hub 6-M (ICH6-M). It features a low-power design, is validated with Intel® Celeron® M processors on 90nm process, and supports up to 2 GB of DDR2 400 MHz system memory.

Intel's platform architecture delivers the performance and high scalability required for today's embedded computing applications. The Intel 910GML GMCH and ICH6-M are part of Intel's comprehensive validation process that enables fast deployment of platforms to maximize competitive advantage while minimizing development risks.

## Product Highlights

- Designed, validated, and optimized for Intel Celeron M processors on 90nm
- 400 MHz front-side bus delivers a high-bandwidth connection between the processor and platform
- Supports dual-channel non-ECC DDR2 400 MHz and single-channel DDR 333
- New graphics core based on Intel GMA 900
- Long-term system reliability over wide operating conditions
- Direct Media Interface (DMI) chip interconnect can be implemented x4 or x2 widths, and provides up to 1 GB/s in each direction in full duplex
- Four USB host controllers provide high-performance peripherals with 480 Mb/s of bandwidth, while enabling support for up to eight USB 2.0 ports. This results in a significant increase over previous integrated one- to four-port hubs at 12 Mb/s
- Four x1 PCI Express ports, fully PCI Express 1.0a-compliant, and support for full 250 MB/s in each direction
- Intel® High Definition Audio<sup>†</sup> (Intel® HD Audio) interface for full surround sound support
- LAN Connect Interface (LCI) provides flexible network solutions such as 10/100 Mb/s Ethernet and 10/100 Mb/s Ethernet with LAN manageability
- Integrated Serial ATA host controller supports two ports and data transfers up to 1.5 MB/s



## Product Highlights (continued)

### Display

- Analog display support
- Dual display support
  - Independent: different images and native display timings on each display device
  - Simultaneous: same images and native display timings on each display device
- SDVO support
  - Dual SDVO channels provide support for a wide array of displays
- Dedicated Local Flat Panel (LFP) LVDS interface

### Internal Graphics Features

- Core frequency
  - Display core frequency up to 200 MHz
  - Render core frequency up to 166 MHz
  - Dynamic Video Memory Technology (DVMT) 3.0 to dynamically allocate up to 128 MB of system memory for graphics usage

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Product	Product Code	Package	Features
Intel® 910GML Graphics Memory Controller Hub (GMCH)	QG82910GML	1257 µFC-BGA	<ul style="list-style-type: none"><li>▪ 400 MHz front-side bus</li><li>▪ Up to DDR2 400 MHz system memory</li><li>▪ Intel® Graphics Media Accelerator 900</li></ul>
Intel® I/O Controller Hub 6-M (ICH6-M)	NH82801FBM	609 µ-BGA	<ul style="list-style-type: none"><li>▪ Direct connection to GMCH via Direct Media Interface</li><li>▪ Supports four PCI Express root ports</li><li>▪ Two-port Serial ATA controller</li><li>▪ Support for up to eight USB 2.0 ports</li><li>▪ Intel® High Definition Audio<sup>†</sup> interface</li></ul>

<sup>†</sup> Intel® High Definition Audio requires a system with an appropriate Intel chipset and a motherboard with an appropriate codec and the necessary drivers installed. System sound quality will vary depending on actual implementation, controller, codec, drivers and speakers. For more information about Intel® HD audio, refer to [www.intel.com](http://www.intel.com) <http://www.intel.com/>

## Intel Access

Embedded Intel® Architecture Home Page: [intel.com/design/intarch](http://intel.com/design/intarch)  
Developer's Site: [intel.com/design](http://intel.com/design)  
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